

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Overview

Plaintiff accuses Defendant of infringement through making, using, selling, offering for sale, and importation of Zoho's ("Defendant" or "Zoho") ManageEngine, including Endpoint Central and Vulnerability Manager Plus (the "Accused System and Method"), and all substantially similar products. The term "Accused System and Method" includes the associated computer hardware, interfaces, software, and data, and the processes and methods related thereto.

The Accused System and Method is accused of directly infringing U.S. Patent No. 10,547,631 (the "'631 Patent"). Plaintiff further accuses Defendant of indirectly infringing the '631 Patent by providing its customers and others the Accused System and Method to utilize in an infringing manner. Defendant intends to cause infringement by its customers and users as Defendant instructs users to use the Accused System and Method in an infringing manner. Defendant deploys client software to implement the Accused System and Method. Defendant also provides support and implementation services for the Accused System and Method, including providing instructions, guides, online materials, and technical support.

The asserted claims include elements that are implemented, at least in part, by proprietary electronics and software in the Accused System and Method. The precise designs, processes, and algorithms used in them are held secret, at least in part, and are not publicly available in their entirety. An analysis of Defendant's documentation and/or source code may be necessary to fully and accurately describe all infringing features and functionality of the Accused System and, accordingly, Plaintiff reserves the right to supplement these contentions once such information is made available to Plaintiff. Furthermore, Plaintiff reserves the right to revise these contentions, including as discovery in the case progresses, in view of the Court's final claim construction in this action and in connection with the provision of its expert reports.

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

10,547,631 Claim 1	Evidence
<p>An apparatus, comprising: an intrusion prevention system;</p>	<p>ManageEngine includes <i>an intrusion prevention system</i> (e.g., The vulnerability information collected across multiple endpoints which also includes antivirus option)</p> <p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p> <p>Intrusion detection and prevention</p> <div data-bbox="600 634 1864 727" style="border: 1px solid red; padding: 5px;"> <p>Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of</p> </div> <p>privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents. At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.</p> <p>At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.</p> <p>https://www.manageengine.com/security.html?meseach</p>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

	<div><div>See what matters most at a glimpse with dashboard widgets</div><div>The vulnerability information collected across multiple endpoints is consolidated in a web console for centralized management and represented with meaningful context in dashboard widgets, translating to reliable and timely results. These interactive dashboard widgets are tailored to direct your attention to the most alarming areas in your network.</div><div><div><div>Vulnerability Severity Summary</div><div>Zero-day vulnerabilities</div><div>Vulnerability Age Matrix</div><div>Vulnerabilities Over Time</div><div>High Priority Vulnerabilities</div></div><div><div>High Priority Vulnerabilities: Where your primary focus should be!</div><div><div><div>VulnerabilitiesVulnerable Software</div><div><div>View More</div></div><table><thead><tr><th>Vulnerabilities</th><th>Affected Systems</th><th>Exploit Status</th><th>Software Name</th></tr></thead><tbody><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Enterprise Edition (x64)</td></tr><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Home Basic Edition (x64)</td></tr><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Home Premium Edition (x64)</td></tr><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Professional Edition (x64)</td></tr></tbody></table></div></div><div><div>Vulnerability Manager Plus automatically curates a list of vulnerabilities that are on the verge of exploitation. This list takes various risk factors into account, such as how easily exploitable a vulnerability is, its severity, age, and patch availability. This table helps you ensure that you haven't left out any essentials in your vulnerability assessment process.</div><div>https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html</div></div></div></div></div>	Vulnerabilities	Affected Systems	Exploit Status	Software Name	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Enterprise Edition (x64)	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Basic Edition (x64)	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Premium Edition (x64)	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Professional Edition (x64)
Vulnerabilities	Affected Systems	Exploit Status	Software Name																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Enterprise Edition (x64)																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Basic Edition (x64)																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Premium Edition (x64)																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Professional Edition (x64)																		
said intrusion prevention system:	ManageEngine intrusion prevention system receives a result of at least one operation performed on at least one of a plurality of networked devices (e.g., The vulnerability information collected by scanning operation) the at least one operation based on first information from at least one first data storage identifying a																				

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

<p>receives a result of at least one operation performed on at least one of a plurality of networked devices; the at least one operation based on first information from at least one first data storage identifying a plurality of existent vulnerabilities including at least one first existent vulnerability and at least one second existent vulnerability, the at least one operation configured for:</p>	<p><i>plurality of existent vulnerabilities</i> (e.g., Known vulnerabilities) <i>including at least one first existent vulnerability and at least one second existent vulnerability</i> (e.g., Multiple vulnerability information collected from open source and stored in central database after verification and then system scan across multiple endpoints)</p> <p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p> <p>Intrusion detection and prevention</p> <p>Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents. At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.</p> <p>At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.</p> <p>https://www.manageengine.com/security.html?mesearch</p>
---	---

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Comprehensive vulnerability scanning

Eliminating blind spots is the basis of successful **vulnerability management**. To achieve this, Vulnerability Manager Plus:

- Detects known or emerging vulnerabilities across all your network endpoints, including workstations, laptops, servers, web servers, databases, virtual machines, and content management systems.
- Offers continuous visibility into your endpoints, whether they are located at the local office, in a demilitarized zone, at a remote location, or always on the move.
- Extends your visibility beyond just vulnerabilities and identifies misconfigurations, high-risk software, active ports, and much more.

<https://www.manageengine.com/vulnerability-management/vulnerability-scanner.html>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho****Leverage a dedicated view for zero-days**

ManageEngine's security researchers constantly probe the internet for any details regarding new threats. As soon as details regarding zero-day vulnerabilities and publicly disclosed vulnerabilities come to light, the information is verified and updated to the central vulnerability database at once, and the data is synchronized to the Vulnerability Manager Plus server.

The screenshot displays the ManageEngine Vulnerability Manager Plus dashboard. The left sidebar shows a navigation menu with options like Software Vulnerabilities, Zero-day Vulnerabilities, System Misconfigurations, High Risk Software, Web Server Misconfiguration, and Port Audit. The main content area is titled 'Threats' and includes a sub-header: 'This view displays zero day vulnerabilities like Wannacry, Meltdown and Spectre, etc. that are present in your network.' Below this, there is a filter section with 'Filter by: Threat Category' and a search bar 'Search by CVE ID: CVE-XXXX-XXXX'. A table lists several vulnerabilities, including Google Chrome (x64) (78.0.3904.87) and various Internet Explorer security updates. Each entry shows the threat category, affected systems, and an action button labeled 'Fix'.

Threats	Threat Category	Affected Systems	Action
Google Chrome (x64) (78.0.3904.87)	ZeroDay_CVE-2019-13721&CVE-2019-...	1	Fix
2019-09 Cumulative Security Update for Internet Explorer 11 for Windows Server 20...	CVE-2019-13675&CVE-2019-1235	1	Fix
2019-09 Cumulative Security Update for Internet Explorer 11 for Windows Server 20...	CVE-2019-13675&CVE-2019-1235	1	Fix
2018-12 Cumulative Security Update for Internet Explorer 9 for Windows Server 200...	IE_ZeroDay_CVE-2018-8653	1	Fix
2018-12 Cumulative Security Update for Internet Explorer 11 for Windows Server 20...	IE_ZeroDay_CVE-2018-8653	1	Fix

At the bottom right of the table, it indicates '1 - 5 of 5' and a page size of '30'.

Vulnerability Manager Plus then scans your network for zero-day vulnerabilities and displays them in a dedicated view in the console, preventing them from being jumbled with less critical vulnerabilities. One of the components in the vulnerability dashboard keeps you constantly informed of how many zero-day vulnerabilities remain unresolved in your network.

Furthermore, you can learn in detail about the latest zero-day vulnerability from tech articles available in the security newsfeed. [Subscribe](#) to the Vulnerability Manager Plus pitstop to receive email notifications on the latest zero day attacks and related news

<https://www.manageengine.com/vulnerability-management/zero-day-vulnerability-mitigation.html>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Vulnerability Manager Plus Server:

The Vulnerability Manager Plus Server helps you to centrally perform all the vulnerability management and compliance tasks in your network endpoints. Some of the tasks include the following:

- Installing agents in computers
- Scanning computers for vulnerabilities and misconfigurations
- Deploying patches and secure configurations
- Uninstalling high-risk software
- Auditing active ports
- Auditing for compliance against CIS benchmarks

Any of the Windows computers in your network with the requirements mentioned [here](#) can be hosted as your Vulnerability Manager Plus Server. This Vulnerability Manager Plus Server at the customer site subscribes to the Central Vulnerability Database, from which it synchronizes the latest information on threats, patches, vulnerabilities, and compliance policies. Patches are downloaded directly from vendor sites and stored centrally in the server's patch store and will be replicated to your network endpoints to conserve bandwidth.

<https://www.manageengine.com/vulnerability-management/help/vulnerability-management-architecture.html#v1>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

	<div><div>See what matters most at a glimpse with dashboard widgets</div><div><div>The vulnerability information collected across multiple endpoints is consolidated in a web console for centralized management and represented with meaningful context in dashboard widgets, translating to reliable and timely results. These interactive dashboard widgets are tailored to direct your attention to the most alarming areas in your network.</div><div><div><div>Vulnerability Severity Summary</div><div>Zero-day vulnerabilities</div><div>Vulnerability Age Matrix</div><div>Vulnerabilities Over Time</div><div>High Priority Vulnerabilities</div></div><div><div>High Priority Vulnerabilities: Where your primary focus should be!</div><div><div><div>Vulnerabilities</div><div>Vulnerable Software</div><div>View More</div></div><table><thead><tr><th>Vulnerabilities</th><th>Affected Systems</th><th>Exploit Status</th><th>Software Name</th></tr></thead><tbody><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Enterprise Edition (x64)</td></tr><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Home Basic Edition (x64)</td></tr><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Home Premium Edition (x64)</td></tr><tr><td> Security Update for Windows 8.1 for x64-based Systems (KB3010788)</td><td>1</td><td>Available</td><td>Windows 8.1 Professional Edition (x64)</td></tr></tbody></table></div><div><p>Vulnerability Manager Plus automatically curates a list of vulnerabilities that are on the verge of exploitation. This list takes various risk factors into account, such as how easily exploitable a vulnerability is, its severity, age, and patch availability. This table helps you ensure that you haven't left out any essentials in your vulnerability assessment process.</p><p>https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html</p></div></div></div></div></div>	Vulnerabilities	Affected Systems	Exploit Status	Software Name	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Enterprise Edition (x64)	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Basic Edition (x64)	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Premium Edition (x64)	Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Professional Edition (x64)
Vulnerabilities	Affected Systems	Exploit Status	Software Name																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Enterprise Edition (x64)																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Basic Edition (x64)																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Home Premium Edition (x64)																		
Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	Available	Windows 8.1 Professional Edition (x64)																		
identifying at least one configuration associated with	ManageEngine identifying at least one configuration associated with the at least one networked device (e.g., The vulnerability information collected by scanning operation and identify a misconfiguration).																				

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

<p>the at least one networked device, and</p>	<p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p> <p>How to prevent security misconfigurations?</p> <hr/> <p>If vulnerabilities are the gateway to the network, it's the misconfigurations that attackers leverage to worm their way to the intended targets. Security misconfigurations are not hard to fix, but they are unavoidable in an enterprise operating at scale. Finding them is a needle in the haystack, as they can be located across any component in an organization's systems, such as its servers, operating systems, applications, and browsers. Lack of visibility and centralized means to remediate misconfigurations makes organizations fall victim to misconfiguration attacks.</p> <p>https://www.manageengine.com/vulnerability-management/misconfiguration/?meseach</p>
---	---

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

	<p>As soon as it's up and running in your network, Vulnerability Manager Plus automatically discovers your Active Directory and workgroup assets. Scaling up? No problem. Since Vulnerability Manager Plus is constantly in sync with Active Directory, new assets will be brought under management as soon as they enter your network, leaving no opportunity for new threats to go unnoticed.</p> <p>Leveraging endpoint agent technology, Vulnerability Manager Plus scans your laptops, desktops, servers, databases, workstations, and virtual machines across your entire global hybrid IT environment every 90 minutes, irrespective of whether they're within the corporate boundary or not.</p> <p>You can set up distribution servers, which replicate primary server commands, for your remote offices simplify management and conserve bandwidth. You can even manage assets within a closed network like a DMZ.</p> <p>Identified systems are probed for different attributes: operating systems, open ports, installed software, user accounts, file system structure, system configurations, and more. Using the library of up-to-date scan data, Vulnerability Manager Plus checks the discovered assets for threats and vulnerabilities and delivers appropriate remediation.</p> <p>https://www.manageengine.com/vulnerability-management/what-is-vulnerability-management.html</p>
<p>associating the at least one networked device with at least one particular vulnerability, based on the identified at least one configuration and the first information from the at least</p>	<p>ManageEngine associating the at least one networked device with at least one particular vulnerability (e.g., The vulnerability information collected by scanning operation and identify a misconfiguration). based on the identified at least one configuration and the first information from the at least one first data storage identifying the plurality of existent vulnerabilities (e.g., Multiple vulnerability information collected from open source and stored in central database after verification). such that second information associated with the result is stored, the second information relating to the association between the at least one particular vulnerability and the at least one networked device (e.g., The vulnerability information collected across</p>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

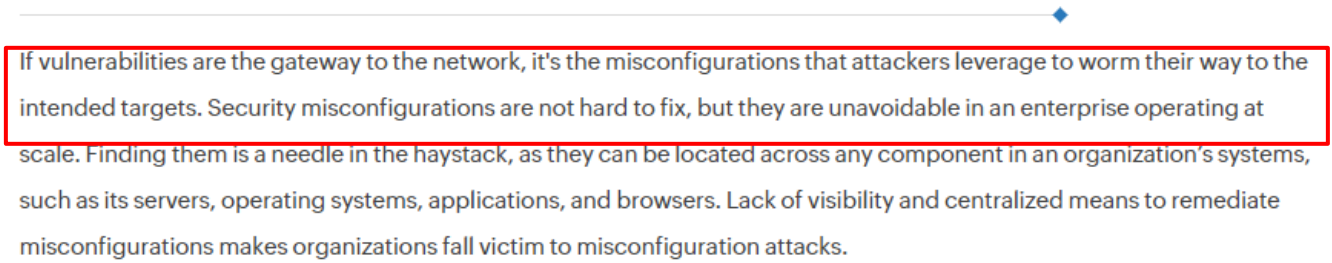
<p>one first data storage identifying the plurality of existent vulnerabilities, such that second information associated with the result is stored, the second information relating to the association between the at least one particular vulnerability and the at least one networked device;</p>	<p>multiple endpoints is consolidated in a web console for centralized management and if vulnerabilities exist then displays them in a dedicated view in the console with its fix)</p> <p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p> <p>How to prevent security misconfigurations?</p>  <p>https://www.manageengine.com/vulnerability-management/misconfiguration/?mesearch</p>
---	--

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

See what matters most at a glimpse with dashboard widgets

The vulnerability information collected across multiple endpoints is consolidated in a web console for centralized management and represented with meaningful context in dashboard widgets, translating to reliable and timely results.

These interactive dashboard widgets are tailored to direct your attention to the most alarming areas in your network.

Vulnerability Severity
Summary


Zero-day
vulnerabilities

Vulnerability
Age Matrix

Vulnerabilities
Over Time

**High Priority
Vulnerabilities**

High Priority Vulnerabilities: Where your primary focus should be!

Vulnerabilities		Vulnerable Software			
Vulnerabilities		Affected Systems	Exploit Status	Software Name	
 Security Update for Windows 8.1 for x64-based Systems (KB3010788)	1	1	Available	Windows 8.1 Enterprise Edition (x64)	
				Windows 8.1 Home Basic Edition (x64)	
				Windows 8.1 Home Premium Edition (x64)	
				Windows 8.1 Professional Edition (x64)	

Vulnerability Manager Plus automatically curates a list of vulnerabilities that are on the verge of exploitation. This list takes various risk factors into account, such as how easily exploitable a vulnerability is, its severity, age, and patch availability. This table helps you ensure that you haven't left out any essentials in your [vulnerability assessment process](#).

<https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho****Leverage a dedicated view for zero-days**

ManageEngine's security researchers constantly probe the internet for any details regarding new threats. As soon as details regarding zero-day vulnerabilities and publicly disclosed vulnerabilities come to light, the information is verified and updated to the central vulnerability database at once, and the data is synchronized to the Vulnerability Manager Plus server.

The screenshot shows the ManageEngine Vulnerability Manager Plus interface. The left sidebar contains a navigation menu with options: Threats, Software Vulnerabilities, Zero-day Vulnerabilities, System Misconfigurations, High Risk Software, Web Server, Misconfiguration, Port Audit, and Update Vulnerability DB. The main content area is titled 'Threats' and includes a description: 'This view displays zero day vulnerabilities like Wannacry, Meltdown and Spectre, etc. that are present in your network.' Below this is a filter section with 'Filter by: Threat Categ...' and a search bar 'Search by CVE ID: CVE-XXXX-XXXX'. A table displays the following data:

Threats	Threat Category	Affected Systems	Action
Google Chrome (x64) (78.0.3904.87)	ZeroDay_CVE-2019-13721_6_CVE-2019-...	1	Fix
2019-09 Cumulative Security Update for Internet Explorer 11 for Windows Server 20...	CVE-2019-13675CVE-2019-1255	1	Fix
2019-09 Cumulative Security Update for Internet Explorer 11 for Windows Server 20...	CVE-2019-13675CVE-2019-1255	1	Fix
2018-12 Cumulative Security Update for Internet Explorer 9 for Windows Server 200...	IE_ZeroDay_CVE-2018-8653	1	Fix
2018-12 Cumulative Security Update for Internet Explorer 11 for Windows Server 20...	IE_ZeroDay_CVE-2018-8653	1	Fix

At the bottom right of the table, it shows '1 - 5 of 5' and a pagination control '30'.

Vulnerability Manager Plus then scans your network for zero-day vulnerabilities and displays them in a dedicated view in the console, preventing them from being jumbled with less critical vulnerabilities. One of the components in the vulnerability dashboard keeps you constantly informed of how many zero-day vulnerabilities remain unresolved in your network. Furthermore, you can learn in detail about the latest zero-day vulnerability from tech articles available in the security newsfeed. [Subscribe](#) to the Vulnerability Manager Plus pitstop to receive email notifications on the latest zero day attacks and related news

<https://www.manageengine.com/vulnerability-management/zero-day-vulnerability-mitigation.html>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

| How can I view the complete list of CVEs affecting my endpoints?

Vulnerability Manager Plus boasts a dedicated Detected CVEs view that lists all the CVEs affecting your network endpoints. All you have to do is select the desired CVEs then click Fix CVE to instantly create a patch deployment task in all the affected machines.

<https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html>

As soon as it's up and running in your network, Vulnerability Manager Plus automatically discovers your Active Directory and workgroup assets. Scaling up? No problem. Since Vulnerability Manager Plus is constantly in sync with Active

Directory, new assets will be brought under management as soon as they enter your network, leaving no opportunity for new threats to go unnoticed.

Leveraging endpoint agent technology, Vulnerability Manager Plus scans your laptops, desktops, servers, databases, workstations, and virtual machines across your entire global hybrid IT environment every 90 minutes, irrespective of whether they're within the corporate boundary or not.

You can set up distribution servers, which replicate primary server commands, for your remote offices simplify management and conserve bandwidth. You can even manage assets within a closed network like a DMZ.

Identified systems are probed for different attributes: operating systems, open ports, installed software, user accounts, file system structure, system configurations, and more. Using the library of up-to-date scan data, Vulnerability Manager Plus checks the discovered assets for threats and vulnerabilities and delivers appropriate remediation.

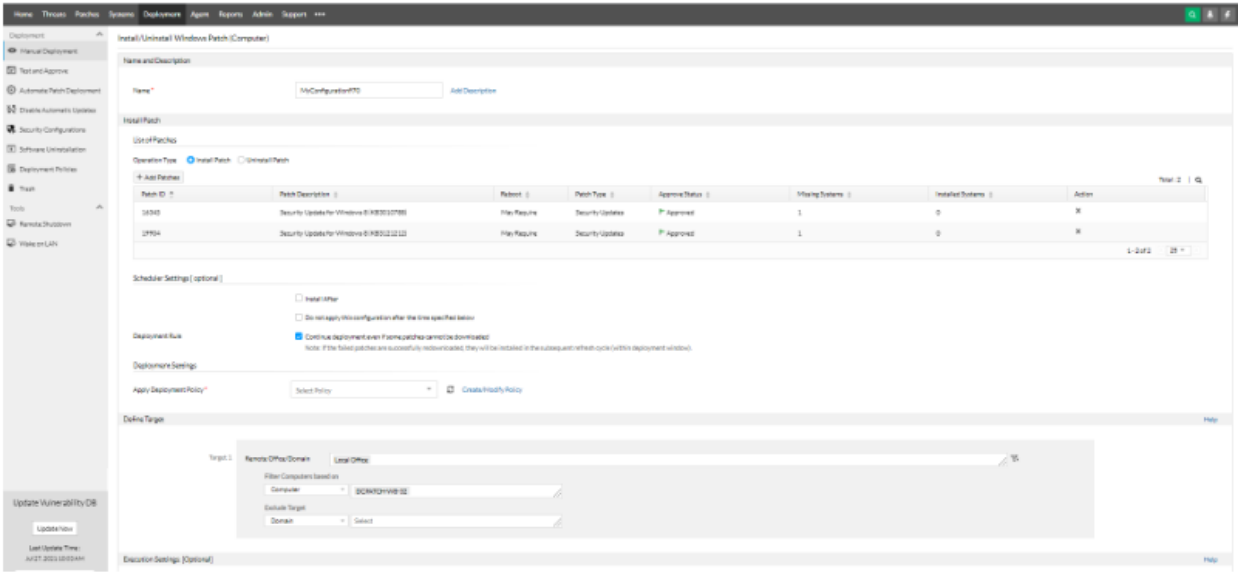
<https://www.manageengine.com/vulnerability-management/what-is-vulnerability-management.html>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Leverage built-in patching to ensure swift and accurate remediation

With the built-in patching functionality automatically correlating patches with corresponding vulnerabilities, you can deliver instant remediation to all affected machines directly. Not only can you decide when patching should begin and end, but you can also customize every aspect of your patching process using flexible deployment policies. Affected target systems are automatically listed; here, you can add or remove targets as desired. You can also retry patch deployments on failed targets as many times as you want and choose to be notified about the deployment status at a frequency of your choosing.



<https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html>

causes to display, via at least one user interface, a plurality

ManageEngine causes to display, via at least one user interface (e.g., ManageEngine Vulnerability Manager Plus includes web console) , a plurality of techniques including a first technique for utilizing an

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

of techniques including a first technique for utilizing an intrusion prevention system component for occurrence mitigation, and a second technique for utilizing a firewall for occurrence mitigation;

intrusion prevention system component for occurrence mitigation (e.g., ManageEngine Vulnerability Manager Plus includes antivirus option), and a second technique for utilizing a firewall for occurrence mitigation (e.g., ManageEngine Vulnerability Manager Plus includes firewall option). The ManageEngine provides flexibility to choose the devices for applying the different policies or mitigation techniques according to the requirements.

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Intrusion detection and prevention

Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of

privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents. At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.

At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.

<https://www.manageengine.com/security.html?meseach>

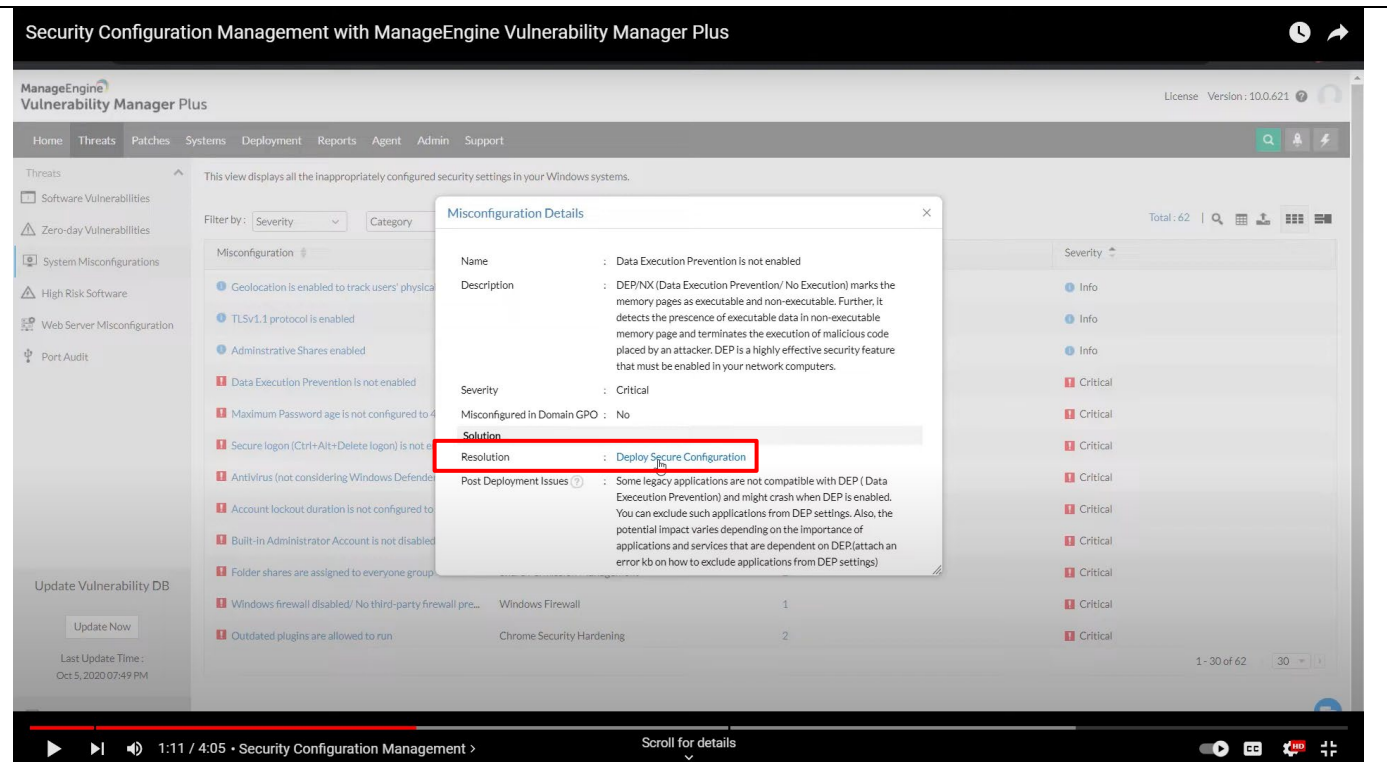
EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

The screenshot displays the ManageEngine Vulnerability Manager Plus interface. The left sidebar shows navigation options: Threats, Software Vulnerabilities, Zero-day Vulnerabilities, System Misconfigurations (selected), High Risk Software, Web Server Misconfiguration, and Port Audit. The main content area shows a list of misconfigurations with filters for Severity and Category. A dropdown menu for 'Category' is open, showing options like Antivirus Protection, User Account Management, Windows Firewall, Password Policy, SSL and TLS Security, and Chrome Security Hardening. A red box highlights the 'Antivirus Protection' option. Below the dropdown, a table lists various security issues, with a red box highlighting several critical items:

Misconfiguration	Category	Affected Systems	Severity
Secure logon (Ctrl+Alt+Delete logon) is not enabled	Logon Security	1	Critical
Antivirus (not considering Windows Defender) not installed	Antivirus Protection	1	Critical
Account lockout duration is not configured to 1440 minutes	Logon Security	2	Critical
Built-in Administrator Account is not disabled	User Account Management	2	Critical
Folder shares are assigned to everyone group	Share Permission Management	2	Critical
Windows firewall disabled/ No third-party firewall present	Windows Firewall	1	Critical

The interface also includes a 'Update Vulnerability DB' button and a 'MORE VIDEOS' link. The bottom of the screenshot shows a YouTube video player interface with the title 'Security Configuration Management' and a progress bar at 1:39 / 4:05.

<https://www.youtube.com/watch?v=p2Oh87NruMo&t=98s>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

<https://www.youtube.com/watch?v=p20h87NruMo&t=53s>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Firewall Policy Management

Firewall Analyzer is a firewall administration software, that helps in administering firewall rules and policies into multiple firewalls. The firewall rule automation ensures that firewall rules are pushed into the device seamlessly, avoiding errors and oversight. This firewall administration tool is capable of making the following changes.

- Add, modify, and delete network and service objects
- Add, modify, and delete firewall rules
- Analyze the implications of proposed firewall rule changes
- Push changes directly to the firewall

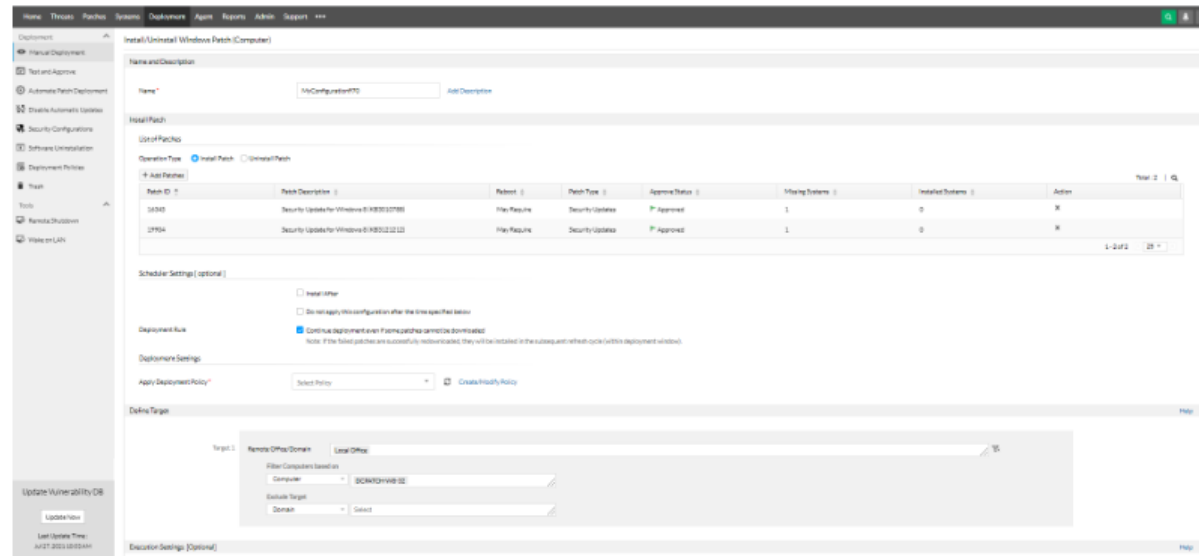
Refer the '[Firewall Rule Administration](#)' page for more details.

Firewall Analyzer is an efficient firewall rule and policy management tool that helps you gain visibility on all firewall rules, optimize firewall rules, and remove rule anomalies. It provides rule management reports for [most major firewall devices](#) including [Cisco](#), [FortiGate](#), [WatchGuard](#), and [Check Point](#).

<https://www.manageengine.com/products/firewall/firewall-rule-management.html>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho****Leverage built-in patching to ensure swift and accurate remediation**

With the built-in patching functionality automatically correlating patches with corresponding vulnerabilities, you can deliver instant remediation to all affected machines directly. Not only can you decide when patching should begin and end, but you can also customize every aspect of your patching process using flexible deployment policies. Affected target systems are automatically listed; here, you can add or remove targets as desired. You can also retry patch deployments on failed targets as many times as you want and choose to be notified about the deployment status at a frequency of your choosing.



<https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html>

allows receipt of:

ManageEngine *allows receipt*, user input causing selection of the first technique for utilizing the intrusion prevention system component for occurrence mitigation (e.g., ManageEngine Vulnerability Manager Plus

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

<p>user input causing selection of the first technique for utilizing the intrusion prevention system component for occurrence mitigation;</p> <p>user input causing selection of the second technique for utilizing the firewall for occurrence mitigation;</p>	<p>includes web consol on which user can select antivirus option) , <i>user input causing selection of the second technique for utilizing the firewall for occurrence mitigation</i> (e.g., ManageEngine Vulnerability Manager Plus includes firewall option). The ManageEngine provides flexibility to choose the devices for applying the different policies or mitigation techniques according to the requirements.</p> <p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p> <p>Intrusion detection and prevention</p> <p>Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents. At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.</p> <p>At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.</p> <p>https://www.manageengine.com/security.html?mesearch</p>
---	--

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

Security Configuration Management with ManageEngine Vulnerability Manager Plus

ManageEngine Vulnerability Manager Plus License Version: 10.0.621

Home Threats Patches Systems Deployment Reports Agent Admin Support

This view displays all the inappropriately configured security settings in your Windows systems.

Filter by: Severity Category

Total: 62

Misconfiguration	Category	Affected Systems	Severity
Geolocation is enabled to track	Security Hardening	2	Info
TLSv1.1 protocol is enabled	TLS Security	1	Info
Administrative Shares enabled	Permission Management	3	Info
Data Execution Prevention is r	Security Hardening	4	Critical
Maximum Password age is not configured to 45 days	Password Policy	1	Critical
Secure logon (Ctrl+Alt+Delete logon) is not enabled	Logon Security	1	Critical
Antivirus (not considering Windows Defender) not installed	Antivirus Protection	1	Critical
Account lockout duration is not configured to 1440 minutes	Logon Security	2	Critical
Built-in Administrator Account is not disabled	User Account Management	2	Critical
Folder shares are assigned to everyone group	Share Permission Management	2	Critical
Windows firewall disabled/ No third-party firewall present	Windows Firewall	1	Critical
Outdated plugins are allowed to run	Chrome Security Hardening	2	Critical

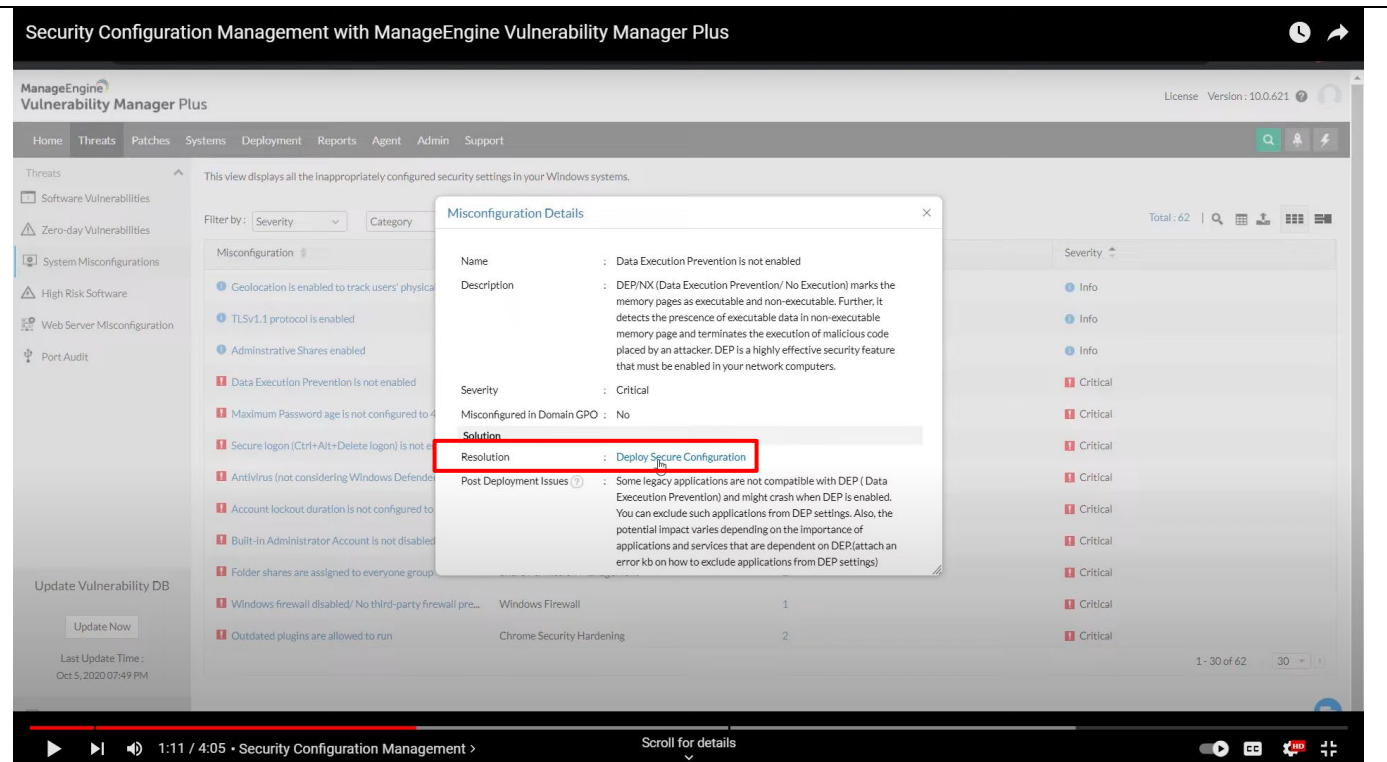
Update Vulnerability DB Update Now

MORE VIDEOS

1:39 / 4:05 - Security Configuration Management

YouTube

<https://www.youtube.com/watch?v=p2Oh87NruMo&t=98s>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

<https://www.youtube.com/watch?v=p20h87NruMo&t=53s>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Firewall Policy Management

Firewall Analyzer is a firewall administration software, that helps in administering firewall rules and policies into multiple firewalls. The firewall rule automation ensures that firewall rules are pushed into the device seamlessly, avoiding errors and oversight. This firewall administration tool is capable of making the following changes.

- Add, modify, and delete network and service objects
- Add, modify, and delete firewall rules
- Analyze the implications of proposed firewall rule changes
- Push changes directly to the firewall

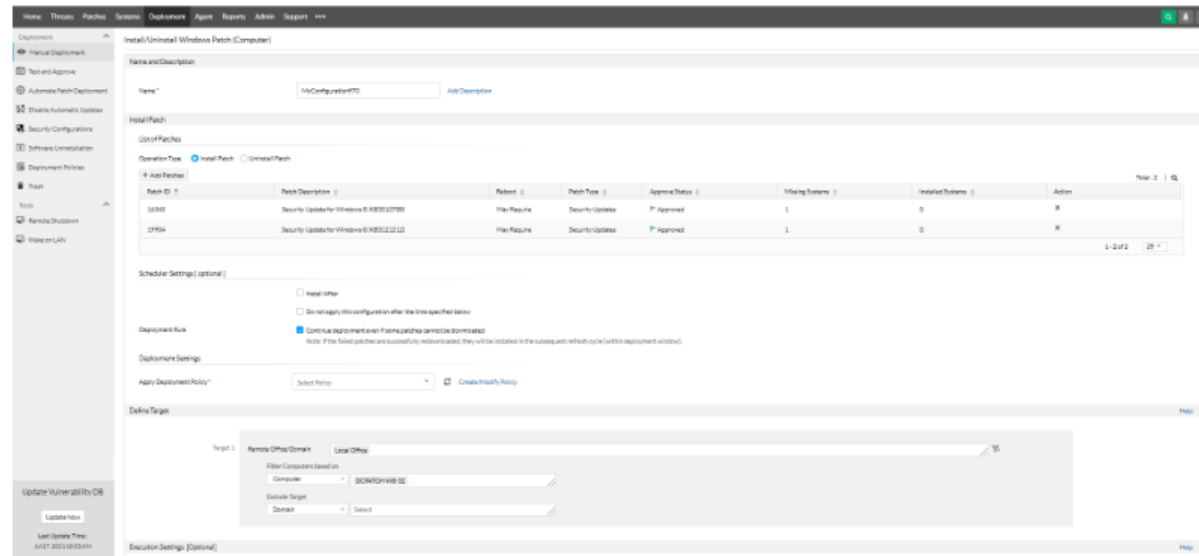
Refer the 'Firewall Rule Administration' page for more details.

Firewall Analyzer is an efficient firewall rule and policy management tool that helps you gain visibility on all firewall rules, optimize firewall rules, and remove rule anomalies. It provides rule management reports for [most major firewall devices](#) including [Cisco](#), [FortiGate](#), [WatchGuard](#), and [Check Point](#).

<https://www.manageengine.com/products/firewall/firewall-rule-management.html>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho****Leverage built-in patching to ensure swift and accurate remediation**

With the built-in patching functionality automatically correlating patches with corresponding vulnerabilities, you can deliver instant remediation to all affected machines directly. Not only can you decide when patching should begin and end, but you can also customize every aspect of your patching process using flexible deployment policies. Affected target systems are automatically listed; here, you can add or remove targets as desired. You can also retry patch deployments on failed targets as many times as you want and choose to be notified about the deployment status at a frequency of your choosing.



<https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html>

applies, based on the user input causing selection of the

ManageEngine applies, based on the user input causing selection of the first technique for utilizing the intrusion prevention system component for occurrence mitigation, the first technique for utilizing the

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

first technique for utilizing the intrusion prevention system component for occurrence mitigation, the first technique for utilizing the intrusion prevention system component for occurrence mitigation;

applies, based on the user input causing selection of the second technique for utilizing the firewall for occurrence mitigation, the second technique for utilizing the firewall for occurrence mitigation;

intrusion prevention system component for occurrence mitigation (e.g., ManageEngine Vulnerability Manager Plus includes web consol on which user can select antivirus option) , *applies, based on the user input causing selection of the second technique for utilizing the firewall for occurrence mitigation, the second technique for utilizing the firewall for occurrence mitigation* (e.g., ManageEngine Vulnerability Manager Plus includes firewall option). The ManageEngine provides flexibility to choose the devices for applying the different policies or mitigation techniques according to the requirements.

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Intrusion detection and prevention

Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of

privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents. At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.

At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.

<https://www.manageengine.com/security.html?meseach>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

Security Configuration Management with ManageEngine Vulnerability Manager Plus

ManageEngine Vulnerability Manager Plus License Version: 10.0.621

Home Threats Patches Systems Deployment Reports Agent Admin Support

This view displays all the inappropriately configured security settings in your Windows systems.

Filter by: Severity Category

Total: 62

Misconfiguration	Category	Affected Systems	Severity
Geolocation is enabled to track	Security Hardening	2	Info
TLSv1.1 protocol is enabled	TLS Security	1	Info
Administrative Shares enabled	Permission Management	3	Info
Data Execution Prevention is r	Security Hardening	4	Critical
Maximum Password age is not configured to 45 days	Password Policy	1	Critical
Secure logon (Ctrl+Alt+Delete logon) is not enabled	Logon Security	1	Critical
Antivirus (not considering Windows Defender) not installed	Antivirus Protection	1	Critical
Account lockout duration is not configured to 1440 minutes	Logon Security	2	Critical
Built-in Administrator Account is not disabled	User Account Management	2	Critical
Folder shares are assigned to everyone group	Share Permission Management	2	Critical
Windows firewall disabled/ No third-party firewall present	Windows Firewall	1	Critical
Outdated plugins are allowed to run	Chrome Security Hardening	2	Critical

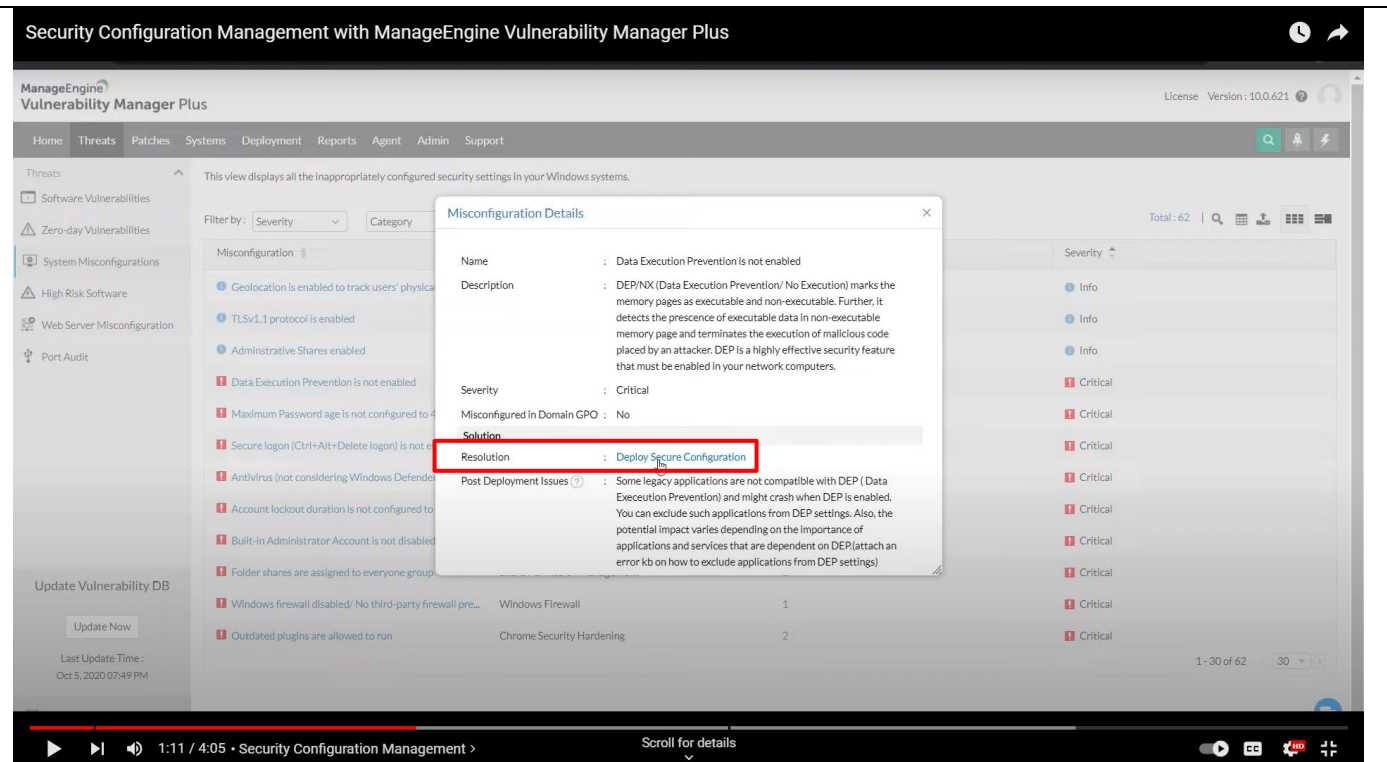
Update Vulnerability DB Update Now

MORE VIDEOS

1:39 / 4:05 - Security Configuration Management

YouTube

<https://www.youtube.com/watch?v=p2Oh87NruMo&t=98s>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

<https://www.youtube.com/watch?v=p20h87NruMo&t=53s>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Firewall Policy Management

Firewall Analyzer is a firewall administration software, that helps in administering firewall rules and policies into multiple firewalls. The firewall rule automation ensures that firewall rules are pushed into the device seamlessly, avoiding errors and oversight. This firewall administration tool is capable of making the following changes.

- Add, modify, and delete network and service objects
- Add, modify, and delete firewall rules
- Analyze the implications of proposed firewall rule changes
- Push changes directly to the firewall

Refer the 'Firewall Rule Administration' page for more details.

Firewall Analyzer is an efficient firewall rule and policy management tool that helps you gain visibility on all firewall rules, optimize firewall rules, and remove rule anomalies. It provides rule management reports for [most major firewall devices](#) including [Cisco](#), [FortiGate](#), [WatchGuard](#), and [Check Point](#).

<https://www.manageengine.com/products/firewall/firewall-rule-management.html>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho****Leverage built-in patching to ensure swift and accurate remediation**

With the built-in patching functionality automatically correlating patches with corresponding vulnerabilities, you can deliver instant remediation to all affected machines directly. Not only can you decide when patching should begin and end, but you can also customize every aspect of your patching process using flexible deployment policies. Affected target systems are automatically listed; here, you can add or remove targets as desired. You can also retry patch deployments on failed targets as many times as you want and choose to be notified about the deployment status at a frequency of your choosing.

The screenshot displays the 'Install/Universal Windows Patch (Computer)' configuration page in the ManageEngine Vulnerability Management console. The interface includes a left-hand navigation menu with options like 'Home', 'Threats', 'Patches', 'Systems', 'Deployment', 'Agent', 'Reports', 'Admin', and 'Support'. The main content area is titled 'Name and Description' and shows a table of patches. Below the table, there are sections for 'Scheduler Settings (optional)', 'Deployment Rule', 'Deployment Settings', 'Define Target', and 'Execution Settings (Optional)'. The 'Define Target' section is currently active, showing a list of targets with columns for Name, Patch Description, Action, and Status. The 'Deployment Rule' section is also visible, showing a dropdown for 'Apply Deployment Policy' and a 'Create New Policy' button.

Patch ID	Patch Description	Action	Status
10000	Security Update for Windows 8.1 KB3033780	Install Patch	Approved
10001	Security Update for Windows 8.1 KB3033781	Install Patch	Approved

<https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

<p>identifies:</p> <p>for the at least one networked device, a first occurrence including at least one first occurrence packet, and</p> <p>for the at least one networked device; a second occurrence including at least one second occurrence packet;</p>	<p>ManageEngine <i>identifies, for the at least one networked device, a first occurrence including at least one first occurrence packet (e.g., Bad traffic) , for the at least one networked device; a second occurrence including at least one second occurrence packet (e.g., good traffic).</i></p> <p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p> <p>DDoS prevention</p> <p>We use technologies from well-established and trustworthy service providers to prevent DDoS attacks on our servers. These technologies offer multiple DDoS mitigation capabilities to prevent disruptions caused by bad traffic, while allowing good traffic through. This keeps our websites, applications, and APIs highly available and performing.</p> <p>https://www.manageengine.com/security.html?meseach</p>
--	---

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

	<p>Intrusion detection and prevention</p> <p>Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents.</p> <p>At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.</p> <p>At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.</p> <p>https://www.manageengine.com/security.html?meseach</p>
<p>determines:</p> <p>that the first occurrence including the at least one first occurrence packet directed to the at least one networked device is capable of taking advantage of the at least one</p>	<p>ManageEngine <i>determines</i> , <i>that the first occurrence including the at least one first occurrence packet directed to the at least one networked device is capable of taking advantage of the at least one particular vulnerability associated with the at least one networked device (e.g., Bad traffic) , that the second occurrence including the at least one second occurrence packet directed to the at least one networked device is not capable of taking advantage of the at least one particular vulnerability (e.g., good traffic).</i></p> <p>Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):</p>

EXHIBIT 13**U.S. Patent No 10,547,631 v. Zoho**

particular vulnerability associated with the at least one networked device;

that the second occurrence including the at least one second occurrence packet directed to the at least one networked device is not capable of taking advantage of the at least one particular vulnerability; and

DDoS prevention

We use technologies from well-established and trustworthy service providers to prevent DDoS attacks on our servers. These technologies offer multiple DDoS mitigation capabilities to prevent disruptions caused by bad traffic, while allowing good traffic through. This keeps our websites, applications, and APIs highly available and performing.

<https://www.manageengine.com/security.html?mesearch>

Intrusion detection and prevention

Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents.

At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.

At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.

<https://www.manageengine.com/security.html?mesearch>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

causes a reaction to at least the first occurrence based on the determination that the first occurrence including the at least one first occurrence packet is capable of taking advantage of the at least one particular vulnerability associated with the at least one networked device.

ManageEngine *causes a reaction to at least the first occurrence based on the determination that the first occurrence including the at least one first occurrence packet is capable of taking advantage of the at least one particular vulnerability associated with the at least one networked device* (e.g., mitigation capabilities to prevent disruptions caused by bad traffic)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

DDoS prevention

We use technologies from well-established and trustworthy service providers to prevent DDoS attacks on our servers. These technologies offer multiple DDoS mitigation capabilities to prevent disruptions caused by bad traffic, while allowing good traffic through. This keeps our websites, applications, and APIs highly available and performing.

<https://www.manageengine.com/security.html?mesearch>

EXHIBIT 13

U.S. Patent No 10,547,631 v. Zoho

Intrusion detection and prevention

Our intrusion detection mechanism takes note of host-based signals on individual devices and network-based signals from monitoring points within our servers. Administrative access, use of privileged commands, and system calls on all servers in our production network are logged. Rules and machine intelligence built on top of this data give security engineers warnings of possible incidents.

At the application layer, we have our proprietary WAF which operates on both whitelist and blacklist rules.

At the Internet Service Providers (ISP) level, a multi-layered security approach is implemented with scrubbing, network routing, rate limiting, and filtering to handle attacks from network layer to application layer. This system provides clean traffic, reliable proxy service, and a prompt reporting of attacks, if any.

<https://www.manageengine.com/security.html?mesearch>